

THE PATIENT EXPERIENCES OF BEING AWAKE DURING INVASIVE PROCEDURE AND NURSING WAYS TO ENHANCE COOPERATION

Literature Review

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Bachelor's thesis
October 2014
Degree Programme in Nursing
Option of Perioperative
Nursing

ABSTRACT

Tampereen ammattikorkeakoulu
Tampere University of Applied Sciences
Degree programme in Nursing
Option of Perioperative Nursing

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Patient Experience in Being Awake during Invasive Procedure and Nursing Ways to Enhance Cooperation
Literature Review

Bachelor's thesis 49 pages, appendices 6 pages
October 2014

The purpose of this study was to discover how patients experience being awake in an invasive procedure due to regional anaesthesia and how nurses enhance the cooperation and coping. This thesis is a literature review that projects and evaluates the most recent knowledge in the light of the topic.

Six articles were discovered and evaluated rigorously to yield six themes. Articles were found mainly in the Cumulative Index to Nursing and Allied Health Literature (CINAHL) using the ancestry approach. The chosen six articles were then critically appraised.

The results were divided into the themes of patient experience and nursing ways to enhance the cooperation. Patient experience themes were the cost of recovering, the effects of the operation or the chosen anaesthesia method, and the lack of knowledge. Themes for nursing ways were giving information, establishing a nurse-patient relationship, and helping the patient to cope.

As a conclusion, the findings suggested that no complicated nursing ways or methods were needed to enhance the cooperation, but mere respect and politeness were the premise for all nursing ways. A continuous information flow made the patients feel more confident towards the procedures in the operation theatre. Further knowledge on how well equipped nurses feel they are in supporting patients to cope is needed.

Key words: regional anaesthesia, local anaesthesia, invasive procedures, surgery, patient experience, awake, nursing care, perioperative nursing.

TIIVISTELMÄ

Tampereen ammattikorkeakoulu
Hoitotyön koulutusohjelma
Perioperatiivinen hoitotyö

TITTA KALLIO:

Potilaskokemukset hereillä olemisesta invasiivisen toimenpiteen aikana regionaalisessa anestesiassa ja hoitotyön keinot edistää yhteistyökykyä
Kirjallisuuskatsaus

Opinnäytetyö 49 sivua, joista liitteitä 6 sivua
Lokakuu 2014

Tämän opinnäytetyön tarkoituksena oli selvittää kuinka potilaat kokevat hereillä olemisen ilmiön regionaalisen anestesian vuoksi invasiivisen toimenpiteen aikana ja minkälaisia hoitotyön keinoja sairaanhoitajat käyttävät edistääkseen potilaan yhteistyökykyä. Tämä opinnäytetyö on kirjallisuuskatsaus, joka valitun aiheen valossa esittää ja arvioi nykytietämystä.

Kuudesta valitusta artikkelista nousi kriittisen arvioinnin pohjalta kuusi pääteemaa. Artikkelien etsimiseen käytettiin pääasiallisesti Cumulative Index to Nursing and Allied Health Literature -tietokantaa ja ancestry approach -menetelmää, jossa aikaisempia tutkimuksia löydetään uudempien tutkimuksien lähdeviitteistä. Valitut kuusi artikkelia arvioitiin kriittisesti.

Tulokset jaettiin teemoihin - potilaskokemukset ja hoitotyön keinot. Potilaskokemukset jaettiin edelleen teemoihin - parantumisen hinta, toimenpiteen ja valitun anestesianmuodon vaikutukset kokemukseen ja tiedon puutteeseen. Hoitotyön keinot jaettiin teemoihin - tiedonanto, potilas – hoitaja – suhteen luominen ja potilaan selviytymisessä auttaminen.

Lopuksi, löydöksiensä pohjalta, hoitotyön keinot eivät olleetkaan monimutkaisia hoitotyön menetelmiä. Sen sijaan kunnioitus potilasta kohtaan ja kohteliaisuus toimivat pohjana kaikille hoitotyön keinoille. Jatkuva tiedon saaminen edisti potilaan luottamusta leikkaussalin tapahtumiin. Se, kuinka valmiiksi sairaanhoitajat tuntevat itsensä potilaan selviytymisen tukemisessa, kaipaa vielä lisätutkimusta.

Avainsanat: regionaalinen anestesia, puudutus, kajoava toimenpide, leikkaus, potilaskokemus, hereillä oleminen, hoitotyö, perioperatiivinen hoitotyö.

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ABBREVIATIONS AND TERMS

CINAHL	Cumulative Index to Nursing and Allied Health Literature
MEDLINE	Medical Literature On-Line
PACU	Post-anaesthesia unit
TAMK	Tampere University of Applied Sciences

1 INTRODUCTION

Invasive operations are increasingly done under regional or local anaesthesia (Mitchell 2008, 261). General anaesthesia is considered to be more risky and also to decelerate the healing and recuperation (Tinnfält & Nilsson 2011, 81). Lack of general anaesthesia also diminishes the need for a longer hospital stay, making the procedures more cost-effective (Wahab, Grundy & Weidmann 2011, 606). Successful co-operation between the operation theatre staff and the patient is crucial in providing successful intraoperative care (Kolvered, Öhlén & Gustafsson 2012, 449).

This thesis sets out to seek knowledge on how patients experience the time in the operation theatre while being awake under regional anaesthesia, and also, how nursing could enhance the co-operation between the patient and the staff during the intraoperative phase of a surgery according to research.

There are many studies about this topic, particularly on the anxiety experienced by patients in the operation theatre (Hankela & Kiikkala 1996, Mitchell 2008, Wahab et al 2010, Tinnfält & Nilsson 2011, Karlsson, Ekeberg, Mauléon & Österberg 2012, etc.). I gathered information from different studies, united the most important factors, and then concluded how this information could be used to benefit us nurses the best way in operation theatres. To provide the best possible experiences and to understand the anxiousness of the patient, nurses need to understand the intraoperative phase through the patients' eyes to find ways to relieve the anxiety. (Karlsson et al 2012, 162; Kolvered et al 2012, 452.)

I decided to study this topic hoping it would benefit the perioperative nurses and nursing students. The working life connection for this thesis is Tampere University of Applied Sciences (TAMK).

2 PURPOSE, PROBLEMS AND OBJECTIVE

The purpose of this Bachelor's thesis is to do a literature review on how patients experience the phenomenon of being awake during an invasive procedure due to regional anaesthesia and how nurses help the patients cope and cooperate in this situation. This, in turn, will hopefully enhance the cooperation between the patient and the staff as a way to promote better intraoperative experiences for patients.

The tasks of this thesis are to answer the following questions:

- How do the patients perceive the experience of being awake during an invasive procedure under regional anaesthesia?
- How can the nurses enhance the cooperation and feeling of security in patients?
- What are the nursing ways to provide the best possible intraoperative experience?

The objective of this thesis is to improve the quality of perioperative nursing care by increasing the nurses' awareness of the importance of providing a secure and calm environment during the intraoperative phase.

The ultimate goal of this thesis is to serve the patient by providing nurses tools to increase the patient's coping skills during their surgery.

3 THEORETICAL STARTING POINTS

In order to understand the experience of a patient in a surgical operation theatre, it is important to define the theoretical background of regional anaesthesia, patient experience, and the patient–nurse relationship. Definitions behind key concepts of this Bachelor’s thesis are explained in the following section.

3.1 Regional anaesthesia

According to Kennedy (2010, 450), regional anaesthesia involves anaesthetic given around nerves that supplies nerving for a specific part of the body, usually the lower extremities of the body. A patient who is under regional anaesthesia is awake and aware of his or her surroundings, and therefore a nursing intervention to ensure the patient’s feeling of security is essential (Karlsson et al 2012, 161). Regional anaesthesia can be epidural anaesthesia, spinal anaesthesia or a conduction block (Kennedy 2010, 450-454). In epidural anaesthesia, the anaesthetic is administered into the epidural space of a spine. In spinal anaesthesia, a nerve block is created by administering the anaesthetic into the subarachnoidal space in the lumbar level. (Kennedy 2010, 453.) In a conduction block, the anaesthetic is administered straight to the desired nerve bundle or to the nerve to create anaesthesia in the wanted area (Kennedy 2010, 454).

When choosing the method of anaesthesia, the upcoming procedure dictates the decision-making (Cobbold & Money 2010, 288). Generally, all surgical procedures done in the peripheral or limb area and in the lower abdomen can be performed under regional anaesthesia (Pitkänen & Inberg 2006, 390). Therefore, the site, duration, ambulatory requirements, and wanted postoperative analgesic effect are considered when choosing the method of regional anaesthesia (Kopp & Horlocker 2010, 84). The patient should also be willing to have regional anaesthesia, and for this reason it is especially important that the method is discussed with the patient preoperatively. Information on the method and the fact that sleep and amnesia can be induced with sedatives in addition to regional anaesthesia may help to sooth an anxious patient. (Pitkänen & Inberg 2006, 390.)

According to Pitkänen and Inberg (2006, 392), definite contraindications to regional anaesthesia are seen in the table below (table 1).

TABLE 1. Definite contraindications to regional anaesthesia

Definite contraindications to regional anaesthesia according to Pitkänen and Inberg	
Patient refusal	
Bleeding tendency due to treatment or medication	
Sepsis	
Acute neurological condition	
Patient unable to cooperate	
Untreated hypovolemia	
Hypersensitivity towards local anaesthetics	

3.1.1 Spinal anaesthesia

Spinal anaesthesia can be used as a method with procedures performed in the lower extremities or areas that are innervated under level T10 of the spinal trunk (Cobbold & Money 2010, 288). The procedure is done by administering one injection containing a small amount of local anaesthetic through the arachnoid and dura matter into the spinal cavity. This causes efficient analgesia, loss of sensation, and relaxation in the wanted area (Pitkänen & Inberg 2006, 410) by the anaesthetic blending with the cerebrospinal fluid and attaching to nerve roots (Lukkari, Kinnunen & Korte 2013, 272).

The procedure is done in a sterile manner and while the patient is seated or laying on his/her side (Pitkänen & Inberg 2006, 410). The patient is monitored during the administration of the anaesthetic because of possible side effects, such as decrease in blood pressure, bradycardia, the sensation of dyspnoea, and headache. Headache is usually due to the puncture of dura matter, which has caused a leakage of cerebral fluid into the epidural space. Bradycardia and the sensation of dyspnoea is caused by the distribution of the anaesthetic too high in the spinal cord, whereas the decrease in blood pressure is due to sympathetic blockade. (Hendolin & Puolakka 2002, 170.)

The distribution of the local anaesthetic in the spinal cord is affected by the baricity (Pitkänen & Inberg 2006, 412-413). When the density of the anaesthetic is greater than the density of cerebrospinal fluid, the medicine is hyperbaric. This means that the anaesthetic agent travels gravitationally in the subarachnoidal space. If the anaesthetic agent is hypobaric (cerebrospinal fluid more dense than the agent), the effect is reversed. (Kennedy 2010, 453.) This feature of the agent can be utilised when planning the area to be anaesthetised by considering the amount of the agent, the duration of the injection, and positioning the patient after the injection (Kennedy 2010, 452).

From a nursing point of view, nurses' duties are to scrub the injection area, help the patient to the position indicated by the anaesthetist, and to keep the atmosphere calm in the operation theatre. The nurse also communicates with the patient, relieves anxiety, and explains the steps of the procedure to the patient while the steps are taken. (Lukkari et al 2013 274.) The patient is instructed to inform the team, if he or she feels any difference in his or her state (Lukkari et al 2013, 275). The onset of the anaesthesia happens in 7-10 minutes (Cobbold & Money 2010, 289).

3.1.2 Epidural anaesthesia

Epidural anaesthesia is administered by giving a single injection or continuous infusion of local anaesthetics and/or opioids in the epidural space of the spine (Cobbold & Money 2010, 290; Lukkari et al 2013, 274). From there, the agent has three pathways to its destination, the nerve tissue. Either straight diffusion to the nerve tissue through the dura matter that surrounds the nerve roots to nerves that pass the epidural space, or to the cerebral spinal fluid and nerve tissue through the dura matter that surrounds the spinal canal. (Pitkänen & Inberg 2006, 416.) This then provides a partly loss of postural sensation and the sensation of touch and motor function, and also eliminates the sensation of cold and pain (Lukkari et al 2013, 274). The agent will spread upwards and downwards the epidural space, depending on the level of the injection and the amount of the agent used (Cobbold & Money 2010, 290). Epidural anaesthesia infusion can be also used as a method of postoperative and chronic pain management (Pitkänen & Inberg 2006, 415).

Epidural anaesthesia is used for a surgical anaesthesia and analgesia in the lower extremities, the peritoneal area, and the lower abdomen (Hendolin & Puolakka 2002, 164). Cobbold and Money (2010, 290) also state that some thoracic procedures can be done under epidural anaesthesia. Because of the fact that the anaesthetic agents are not making a straight contact with the nerve tissue, larger amounts of anaesthetic agent are used than in spinal anaesthesia (Kennedy 2010, 450).

Only a fraction of the total volume of the agent reaches the target tissue. The majority of it is diffused into epidural fat and through veins passing the epidural canal. (Pitkänen & Inberg 2006, 415.) This poses a danger to complications such as total spinal anaesthesia, if too much of the agent is blocking too widely the nerving of the spinal canal, and anaesthetic toxicity, when too much of the agent is circulating in the systemic bloodstream (Pitkänen & Inberg 2006, 415). Other complications of epidural anaesthesia can be an accidental puncture of the dura matter, which may lead to postspinal headache (Cobbold & Money 2010, 291) and in a more severe case, to total spinal anaesthesia (Hendolin & Puolakka 2002, 168).

This method is also done in a sterile manner and nursing features are quite similar with preparing the patient to spinal anaesthesia (Lukkari et al 2013, 274). The needle used in this method is usually larger and blunt tipped, which creates a need for the local anaesthesia of the skin (Hendolin & Puolakka 2002, 164-165). In addition, a test dose of adrenalin is used to guarantee the right place of the needle tip and patient safety (Hendolin & Puolakka 2002, 165-166). Communication with the patient needs to be kept going and the patient's heart rate and rhythm, blood pressure, and oxygenation is monitored during the procedure. The staff is also prepare for a possible need of resuscitation. Surgical anaesthesia is achieved in 15-20 minutes. (Lukkari et al 2013, 273-275.)

3.1.3 Combined regional anaesthesia

According to Pitkänen and Inberg (2006, 421), spinal anaesthesia can be combined with epidural anaesthesia, when epidural pain management is needed postoperatively. This amplifies the benefits of both regional anaesthesia methods and decreases the disadvantages (Hendolin & Puolakka 2002, 171).

Pitkänen and Inberg (2006, 421) and Hendolin and Puolakka (2002, 171) both introduce two methods of administering the combined regional anaesthesia: by double injection and by one injection. In the double injection method, the epidural catheter is placed on the upper intervertebral level with the help of the first injection and the spinal injection is then given separately on the lower intervertebral level. When inserting the epidural catheter, the anaesthetist reassures the place of the catheter by administering a test dose of adrenalin and local anaesthetic to exclude accidental intravenous or spinal administration. (Pitkänen & Inberg, 2006, 421.) In the one injection method, an epidural catheter is used, which has another opening for the spinal needle at the tip of the bent needle (Hendolin & Puolakka 2002, 171). The one injection method is more pleasant to a patient, since only one puncture of a skin is required (Pitkänen & Inberg 2006, 421).

This method of regional anaesthesia enables the titration of the medication and therefore has a smaller risk of toxicity. Indications of this method are the same as in spinal and epidural anaesthesia. This method is especially popular in obstetric and orthopaedic surgery. (Hendolin & Puolakka 2002, 171.)

3.1.4 Conduction blocks

When administering local anaesthetic in a close proximity of a nerve bundle or nerve trunk, the area that the specific nerve bundle or trunk is innervating can be anaesthetised (Pitkänen & Inberg 2006, 395). A large volume of the agent is injected to fascia surrounding the nerve-blood vessel trunk (Inberg & Haasio 2002, 178). Successful anaesthesia is achieved when both motoric and sensory nerves are anaesthetised (Pitkänen & Inberg 2006, 395).

According to Inberg and Haasio (2002, 172-180), Pitkänen and Inberg (2006, 395- 407), Cobbold and Money (2010, 291-292), and Kennedy (2010, 454), the most common examples of conduction blocks are brachial plexus blocks, intercostal nerve block, and lower limb conduction block. Furthermore, Inberg and Haasio (2002, 172-175) and Pitkänen and Inberg (2006, 396-402) divide brachial plexus block into interscalene brachial plexus block, infraclavicular brachial plexus block, and axillary brachial plexus

block. Here, the interscalene method enables surgical procedures in the shoulder joint, the shoulder, and the upper arm, and the axillary method enables surgical procedures in the elbow joint, the forearm, and the hand (Inberg & Haasio 2002, 176-179). Infraclavicular brachial plexus block enables surgical procedures in the distal part of the upper arm, the forearm, and the hand (Pitkänen & Inberg 2006, 400). Indications to intercostal nerve block are surgical procedures performed in the thorax and upper abdomen (Cobbold & Money 2010, 292) and as pain management with rib fractures (Pitkänen & Inberg 2006, 406-407). Lower limb conduction blocks are mainly used as postoperative pain management methods (Pitkänen & Inberg 2006, 403).

The area that needs to be anaesthetised, commands the method of conduction block (Pitkänen & Inberg 2006, 395). To identify the nerve trunk or a bundle, the anaesthetist often uses ultrasound or a nerve stimulator to help with the procedure (Pitkänen & Inberg 2006, 395). The induction of anaesthesia is 20-40 minutes (Inberg & Haasio 2002, 177) and can be done before the patient is transferred to the operation theatre in the induction area (Lukkari et al 2013, 267). The effect of the anaesthetic needs to be tested by the anaesthetic team before the incision is made (Inberg & Haasio 2002, 177).

3.1.5 Summary of the methods of the regional anaesthesia

The table below gathers the previous information together.

TABLE 2. A summary of the methods of regional anaesthesia according to Hendolin and Puolakka (2002, 171), Pitkänen and Inberg (2006; 410, 421), Kennedy (2010, 450-454), and Lukkari et al (2013, 267-273)

Method of anaesthesia	Indication to anaesthesia	Anaesthetised region	Method of administration
Spinal anaesthesia	Procedures done in the lower extremities, such as orthopaedic, urological, and gynaecological operations.	Depends on the level of injection, but usually the area that is innervated under the lumbar level L3-L4.	By a thin and sharp needle with a guide wire. Local anaesthetic at the injection site therefore seldom needed.
Epidural anaesthesia	Procedures done in the lower extremities and the lower body. Additionally, used for postoperative pain management method.	Depends on the level of injection.	Can be administered almost at any level, but mostly in the lumbar level and the thoracic level. The needle is blunt,

			thick and bended, and therefore local anaesthesia in the skin at the injection site is needed. In addition, an epidural catheter can be inserted for continuous anaesthetic administration.
Combined regional anaesthesia	The same as the previous two. Usually with an operation where postoperative pain management is more demanding.	The same as the previous two.	Can be done separately or with a needle that allows methods of both administrations, so called double needle.
Conduction block	When an area that certain nerve bundle or nerve trunk is innervating is wanted to be anaesthetised, for example in operations in the upper extremities.	Depends the on the nerve bundle or trunk to be anaesthetised.	Methods vary. Based on knowledge on anatomy, knowledge on the method and equipment, such as the nerve stimulator and ultrasound, and cooperation between the patient, the anaesthesiologist, and anaesthetic nurse.

3.2 Care pathway of a perioperative patient in Finland

The patient who eventually receives some kind of surgical treatment or undergoes a surgery experiences different subfields of nursing, such as primary nursing, preoperative nursing, perioperative nursing, surgical nursing, and perhaps even medical nursing. This means that the patient's pathway is thought to be a wholesome experience from the first symptoms, through outpatient clinics and inpatient wards, and all the way to home. (Lukkari et al 2013, 20.)

In Finland, the nursing care is always based on a theoretical background, and therefore the Finnish Ministry of Social Affairs and Health has established nationwide recommendations for care, called Current Care Guidelines (Käypä Hoito), which are based on most recent scientific evidence. These recommendations are used to guide the patient care and the care pathway of an ambulatory patient. (Hammar 2011, 9.)

Perioperative care includes three steps of care - preoperative care before the operation, intraoperative care, which includes the actual operation, and postoperative care (Lukkari

et al 2013, 20). The care path begins when the patient has developed a need for surgical treatment and seeks help for his or her symptoms through contacting primary health care or hospital emergency room (Lukkari et al 2013, 23). Then a referral is given to the patient to receive an assessment for the need of care in a specialised health care unit. Additionally, more examinations are made and an appointment scheduled with the surgeon. The surgeon then together with the patient and the evidence gathered makes the decision to operate. The patient also receives patient education about the upcoming operation. Then the patient is put to a surgical queue according to the need and urgency of care. (Lukkari et al 2013, 24.)

The patient then receives an invitation to the surgery. According to the invitation, the patient arrives at an inpatient ward prior to the operation or at the preanaesthesia unit in the morning of the operation. There he or she meets the anaesthesiologist and anaesthetic nurse, and the anaesthesia is discussed. In addition, patient education about postoperative instructions and about the operation is usually given here again. The patient is given time and space to ask questions about the operation to relieve anxiety. (Hammar 2011, 11-15; Lukkari et al 2013, 24.)

After the operation, the patient is moved to a post anaesthesia care unit (PACU), and from there on to a surgical inpatient ward, an intensive care unit or home, depending on the need of the postoperative care. Before the patient leaves the hospital, he or she receives again patient education about the postoperative care and care instructions to take home with him/her. (Hammar 2011, 15.) The perioperative care path is considered to have ended when the original ailment is treated (Lukkari et al 2013, 24).

The table of overview on the care pathway of surgical patient in Finland can be seen in Appendix 1 (Käypä Hoito 2008; Hammar 2011, 11-18; Lukkari et al 2013, 24). In the table, the care pathway for an ambulatory surgery is illustrated.

3.3 Patient experience

Oxford Dictionary defines experience as “to encounter or undergo an event or occurrence” and as “to feel an emotion or sensation” (Oxford Dictionaries 2014). According to Lees (2010, 25), health care is an industry the consumer needs, but might

not want to have. How the patient views his or her hospital stay or received nursing care depends on many different factors, such as the patient's gender, age, the duration of hospital care, education, income, and type of the ward (Findik, Usnar & Sut 2010, 162). The perception of care by the patients is widely seen as a measure for the quality of care provided (Walsh & Walsh 1999, 307; Han, Conolly & Canham 2003, 149; Findik et al 2010; Lees 2010, 162). The patient experience of being satisfied with health care affects the treatment that he or she receives and the outcomes of the treatment positively (Raivio, Jääskeläinen, Holmberg-Marttila & Mattila 2008, 2622). More satisfied patients also tend to continue and comply with their treatment regimen and to be more cooperative (Bleich, Özaltın & Murray 2009, 271).

The distinction between patient satisfaction and patient experience is a difficult matter. There are a number of methods and designed surveys to measure patient satisfaction (Lees 2011, 26), but patient experience is seen more as narrative information, such as stories of experiences and how the care received felt. These are more difficult to measure. (Rhodes, Miles & Pearson 2006, 178-179.) In addition, when interpreting the results, researchers tend to use the records of health outcomes and mortality, and these rarely have an effect on the experience of the patient (Lees 2011, 26).

Surgery is often a once in a lifetime experience for a patient and therefore intimidating (Karlsson et al 2012, 155). According to Hankela (199, 106), patients regarded the intraoperative experience successful when they were able to cope, keep on, and manage through the invasive procedure.

3.4 Nurse–patient relationship

A nurse-patient relationship is an important component of professional nursing that is based on mutual trust and respect. It is a therapeutic caring relationship. (Griffith 2013, 1087.) According to Miner-Williams (2007, 1215), it is in the centre of nursing discipline and it enhances the recuperation of the patient.

The crucial element of a nurse-patient relationship is trust (Belcher & Jones 2009, 142). In order to be able to concentrate on healing and recuperation, the patient needs to be able to trust the nurse, instead of questioning decisions and instructions. Trust is a

continuing process, and also the nurse needs to be able to trust the patient and to believe the patient. (Belcher & Jones 2009, 143.)

In a nurse-patient relationship, it is important to realise the boundaries of the relationship and acknowledge the professional nature of it. Discussing patient related information with someone who is not part of the patient's care, accepting gifts from the patient and going to holidays with a patient is considered a breach of professionalism. (Griffith 2013, 1088.)

In perioperative nursing, the relationship between the nurse and the patient is needed for maintaining cooperation and achieving a successful surgical outcome. (Kilvered et al 2011, 456). The basis for a trusting nurse-patient relationship is granted by nursing care procedures and regarding the patient as an equal (Tinnfält & Nilsson 2011, 87).

3.5 Preoperative education

The nurse is an advocate for the patient and speaks for the patient when he or she cannot or is unable to (Carnwell 2009, 42). In addition, communication between the nurse and the patient and education about the health situation of the patient are ways to relieve anxiety and to help the patient to concentrate on recovering (Carnwell 2009, 43). The nurse's knowledge of the patient and knowing the patient enhances safe nursing care (Zolnierrek 2013, 9).

When hospital stays are shortening with surgical patients, patient education grows into an increasingly important role in patient care (Blandford, Gupta, Montgomery & Stocker 2011, 1088-1089). Preoperative counselling is profitable for both the patient and the provider (Reiter 2014, 377). Preoperative counselling and education prevents further anxiety in the operation theatre (Lee & Lee 2012, 2551) and gives professionals a chance to educate the patients on upcoming happenings, and perhaps correct false beliefs (Mitchell 2008, 267). According to Allison and George (2014, 369), preoperative education and communication has an effect on patient satisfaction towards the intraoperative experience.

According to Lukkari et al (2013, 129), in an ambulatory surgery, a preoperative visit is arranged, where the patient meets the operating surgeon, the anaesthesiologist, and the surgical nurse. However, this method is not widely used in Finland with every surgical patient (Lukkari et al 2013, 129).

4 METHODOLOGY

In the following section, I will explain how the process of literature review works in theory and how it was performed for this thesis. The literature retrieval is projected in as transparent a manner as possible in order to increase the trustworthiness of this thesis (Polit & Beck 2012, 653) and to show the pattern of how I have found the research data and how I have come to the conclusion. The literature retrieval process has been demonstrated accurately so that the study could be reproduced, which also increases the validity (Polit & Beck 2012, 96-97).

4.1 Literature review

A common consensus on defining literature review is that it is a summary of current knowledge on a specific topic and a critical review of the findings presented in studies (Cronin, Ryan & Coughlan 2008, 38; Salminen 2011, 3; Polit & Beck 2012, 732). Furthermore, Salminen (2011, 5) describes that a literature review is not a defining reference list nor is it a book review.

According to Cronin et al (2008, 39), literature reviews can take a form of a traditional or a narrative literature review, a systematic literature review, a meta-analysis, or a meta-synthesis. According to the definition, a systematic literature review tries to find a rigorous scope of research articles that answer the research question as clearly as possible. This data is then used and strictly analysed and tabulated to project the most current information. (Polit & Beck 2012, 653.) A meta-analysis, on the other hand, tries to define and integrate the findings from different research articles by conducting a statistical analysis of the data. A meta-synthesis does not use statistics, but it rather tries to achieve greater understanding from all key elements in the available data and not to reduce the scope of information, but appreciating all findings as a resource. (Cronin et al 2008, 39.)

Within the time limit that the Bachelor's thesis process creates and the definition of the systematic literature review, the thesis can hardly be defined as a systematic literature review. Yet in the process of making this thesis, the steps of systematic literature review

process has been followed as closely as possible. This thesis seeks to find common knowledge to the questions on hand, so that the answer can be formulated. Hence, the product is simply a critically and rigorously made narrative literature review, since the evidence is not integrated statistically either (Polit & Beck 2012, 654).

The process of conducting a literature review is described in many sources that address nursing research (Polit & Beck 2008, 172; Rebar, Gersch, Macnee & McCabe 2011, 41; Polit & Beck 2012, 96). The process of writing a Bachelor's thesis includes producing a plan for the study, where the key elements of the process, such as the research questions, keywords, the method of conducting the search, and methodology behind the study are presented.

4.2 Selection criteria

The research questions give limitations to the articles in the search. The questions create exclusion and inclusion criteria that guide the initial choice of articles. My first question was about the patient's perceptions of being awake during the intraoperative period. This excludes articles and studies that involve a requirement for heavy sedation and general anaesthesia – a requirement to create an anamnesis for the patient. Therefore, the subjects studied need to have a recollection of the phenomenon, of being awake in the operation theatre, in order for the study to be able to answer the question. The first question also addresses the phenomenon of experience. Experience is narrative information that is in turn the personal story of the narrator (Holloway & Freshwater 2007, 5). Hence, the articles included in the review need to tell the patient's story of how he or she experienced the phenomenon.

The research questions also involve nursing practice, and therefore the articles and studies that are clearly focused on the medical aspect of the phenomenon are excluded. Additionally, the nursing practice inside the operating theatre is in the centre of this study, and therefore studies and articles involving only the pre or postoperative phase of perioperative nursing are excluded. The procedures in the articles chosen were not only ambulatory surgeries, but also emergency surgery cases were considered.

Narrative information is not bound to time (Morse 2012, 137). Important studies about patient experience during the intraoperative phase have been made before the year 2004. These studies give information that has been cited in several studies in more recent years, such as Hankela and Kiikkala, 1996 (see, for example, Leinonen, Leino-Kilpi, Sthålborg & Lertola 2001; Susleck, Willocks, Secrest, Norwood, Holweger, Davis, Myhan & Trimpey 2007; Mitchell 2008; Jönsson & Mårtensson 2011; Tinnfält & Nilsson 2011; Karlsson et al 2012). This study of Hankela and Kiikkala is dated to 1990's, and therefore it can be seen as old information. But since I am interested in the patient experience, I will include all studies that will answer my research questions without age prejudice.

As an additional exclusion criterion, the studies reviewed consider only adult patients. This is mainly because all the articles discovered do not discuss child patients' experiences. In addition, regional anaesthesia is still widely performed in the sedation of children, and even general anaesthesia is sometimes used to ensure the safe administration of anaesthetic and avoiding adverse reactions (Marhofer, Ivani, Suresh, Melman, Zaragoza & Bosenberg 2012, 997). To perform a full operation on a patient under regional anaesthesia successfully, cooperation with the patient is needed (Tinnfält & Nilsson 2011, 82). Children usually see the operating room and the situation in perianaesthesia settings scary and therefore easily cry and move during the administration (Marhofer et al 2012, 997).

As an exclusion criterion, the patients in the articles chosen for the review can be suffering from a critical state, but not life threatening. Their experience should not be altered by the fear of death before the surgery. In addition, mothers having caesarean sections were excluded, since the experience of giving birth to a child most definitely affects the perioperative experience.

Language limitations are that the articles reviewed are written in English, Swedish or Finnish. Articles chosen for the review are mainly in English, except for one, which is written in Swedish.

To increase the validity of this thesis, I have made sure that the articles chosen have been published in known nursing journals and that all of the articles are peer-reviewed. This means that the articles have been read and critiqued by at least two reviewers that

have not been informed about the identity or the background of the original author or authors (Rebar et al 2011, 208). Polit and Beck (2012, 657) state that the peer-review system is important in finding relevant and trustworthy evidence.

4.3 Literature retrieval

Nowadays, literature retrieval is mainly conducted using a computer (Polit & Beck 2010, 173). To ease the search for relevant and trustworthy evidence, bibliographic databases are created to provide a forum for researchers to share published research articles and studies (Cronin et al 2008, 40), and for others to find them and base their practice upon them (Melnik & Fineout-Overholt 2011, 51). However, it is not enough to use only a bibliographic database. To have the best possible scope of evidence, the researcher needs to have alternative methods of data retrieval, such as the hand search, the ancestry approach, and the author search, to mention a few. Using several different methods, resources enhance the validity of the study in the end. (Polit & Beck 2012, 657-658.)

For the initial search, I used a wide variety of different bibliographic databases, such as CINAHL (Cumulative Index to Nursing and Allied Health Literature), Medic, and MEDLINE (Medical Literature On-Line). Polit and Beck (2010, 175-176; 2012, 100-101) and Melnik and Fineout-Overholt (2012, 46-47), among others, say that CINAHL and MEDLINE databases are especially used by nursing researchers and in their benefit.

After doing my initial searches through CINAHL, MEDLINE, and Medic, I came to discover that CINAHL and MEDLINE offer the same results regarding the nursing point of view for my research question. In addition to nursing related articles already found through CINAHL, MEDLINE provided a medical perspective on the topic. The research questions specifically address the patient experience and patient point of view, and also the nursing process and methods. Therefore, MEDLINE was excluded as a source of data, since it could not offer new data within my search criteria. Medic also had the same problem as MEDLINE that it did not offer additional information within the criteria set. Still, both of these databases were used for searching information for the theoretical background of this thesis.

The nursing journals provided by the TAMK library were searched manually. I also acquired guidance from a TAMK librarian to seek articles that I could not access for some reason. I also received help with the literature retrieval from my mentor teacher and fellow students, who offered me articles and research data they had come across and what they thought would be beneficial for me.

After having a good number of articles and after reading them, I continued tracking down research using the ancestry approach. The ancestry approach means that the researcher uses the citations and references of the newer articles to find the older, “the ancestor” articles (Polit & Beck 2012, 98). This method increased the number of articles by four relevant article choices.

As keywords I used anaesthesia, regional anaesthesia, local anaesthesia, patient, patient care, nursing, nursing care, perioperative nursing, intraoperative nursing, awake, feeling, experience, and patient experience with different combinations. The search combinations and their hits and limitations can be seen in table 3. With the search terms, I used Boolean operators such as AND, OR and NOT to delimit and limit my searches (Polit & Beck 2012, 99). Because CINAHL utilises mapping where there is a set of subject codes or synonyms for every keyword (Polit & Beck 2012, 99), there is no need to distinguish British English and American English keywords, since the software translates the inserted keyword into the most used one in the system. Additionally, clicking the option “apply related words” ensures the use of synonyms and plurals of the root words (Polit & Beck 2012, 101).

TABLE 3. Searches in CINAHL

Searchs	Hits
regional anaesthesia OR local anaesthesia NOT children, full text	143
regional anaesthesia OR local anaesthesia AND patient care AND experience NOT children, full text	92
patient AND experience AND intraoperative nursing NOT children, full text	2
perioperative nursing AND experience NOT children, full text	134
feeling AND awake AND anaesthesia NOT children, full text	14
awake AND experience AND nursing NOT children, full text	6
awake AND experience AND patient AND regional anaesthesia OR local anaesthesia AND perioperative nursing NOT children, applied related words, also search from text,	411

full text	
awake AND experience AND nursing AND regional anaesthesia OR local anaesthesia NOT children, applied related words, also search from text, full text	4972
intraoperative nursing AND local anaesthesia OR regional anaesthesia AND patient experience NOT children, applied related words, also search from text, full text	596
intraoperative nursing AND local anaesthesia OR regional anaesthesia AND patient experience AND nursing care NOT children, applied related words, also search from text, full text	334
intraoperative nursing AND local anaesthesia OR regional anaesthesia AND patient experience AND nursing care AND nursing methods NOT children, applied related words, also search from text, full text	134

Figure 1 shows the steps taken in retrieving the relevant evidence.

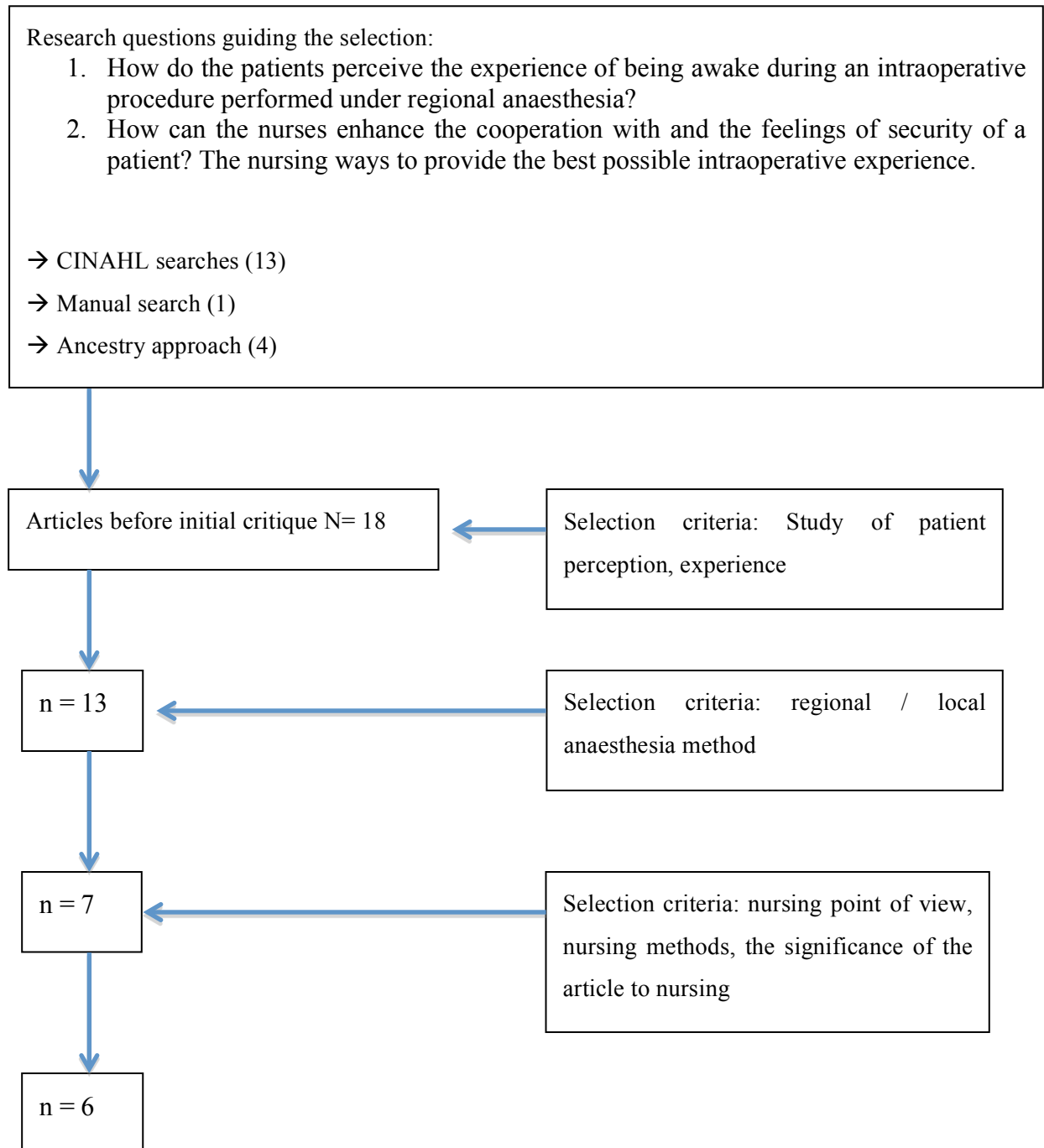


FIGURE 1. The process of literature retrieval.

After applying the exclusion criteria, six articles remained to answer the presented questions. The articles chosen for a more thorough scan of critical appraisal are presented in table 4.

TABLE 4. The selected articles for the review

Author(s)	Year	Title	Country
Hankela, S. & Kiikkala I.	1996	Intraoperative Nursing Care as Experienced by Surgical Patients	Finland
Mauleon, A., Palo-Bengtsson, L. & Ekman S-L.	2007	Patients Experiencing Local Anaesthesia and Hip Surgery	Sweden
Haugen, A., Eide, E., Olsen, M., Haukeland, B., Remme, Å. & Wahl, A.	2008	Anxiety in Operating Theatre: a Study of Frequency and Environmental Impact in Patients Having Local, Plexus or Regional Anaesthesia	Norway
Mitchell, M.	2008	Conscious Surgery: Influence of the Environment on Patient Anxiety	United Kingdom
Jönsson, S. & Mårtensson, J.	2011	Uppfattningar om Ryggbedövning hos Dagkirurgiska Patienter som Genomgår Knäartroskopi (Views of Regional Anaesthesia of Day Surgery Patients Undergoing Knee Arthroscopy)	Sweden
Karlsson, A-C., Ekeberg, M., Mauléon, A. & Österberg, S.	2012	"Is that My Leg?" Patient's Experiences of Being Awake during Regional Anaesthesia and Surgery	Sweden

4.4 Critical appraisal

To ensure that the validity of the information acquired from the evidence collected, the evidence, its trustworthiness, and strength should be evaluated critically (Melnyk & Fineout-Overholt 2011, 76-77; Polit & Beck 2012, 658). Therefore, the researcher should be able to trust the studies she or he is utilising, and that is why a critical appraisal of the evidence is crucial in order to evaluate the value of the evidence (Melnyk & Fineout-Overholt 2011, 74-75). In addition, according to the Finnish law on health care (Health Care Act 2010), all the care given needs to rely on knowledge based on the latest research. This, in other words, binds us to the use of evidence-based practice in nursing work in Finland. According to Melnyk and Fineout-Overholt (2011, 75) highest quality in nursing research results in highest quality in the care given. The critical-appraisal of the evidence we are considering to bring into practice will improve patient safety and the wanted patient outcomes (Robert & Petersen 2013, 85).

There are several different kinds of tools for doing this evaluation. They are presented for example in nursing research textbooks that I have mainly used. Both Melnyk and Fineout-Overholt (2011, 76) and Polit and Beck (2012, 113-117) are interested in the quality, quantity and consistency of the studies appraised both in qualitative and quantitative study designs. On the other hand, Rebar et al (2011, 153-155) identify four themes when evaluating qualitative evidence. They are trustworthiness, consistency, transferability and credibility, and for quantitative evidence (Rebar et al 2011, 156), reliability and validity, to evaluate the quality of the measures.

Trustworthiness is described as general trust over the study, that is, that the data is honest and the data collection protocol is consistent throughout (Polit & Beck 2012, 167). Consistency (or as referred in American English, confirmability) means that the data can be confirmed, it is consistent and repeatable (Rebar et al 2011, 154). Transferability is discussed when it is evaluated whether the data is transferable to other settings, other patient groups and so on (Melnik & Fineout-Overholt 2011, 155). Credibility is trusting that the evidence is credible (Rebar et al 2011, 154).

In quantitative evidence, if the measurement tool sets out to measure the phenomenon, and it accomplishes answering the original question, it is considered valid. When this tool of measurement can be used again and it gives consistent outcomes that are consistent with the original outcomes, it is a reliable tool (Rebar et al 2011, 162). If the results of the measurement tool and the results of the study are not in line, the study cannot be valid and reliable; therefore, it is not a clinically meaningful study (Melnik & Overholt-Fienout 2011, 100).

The articles chosen are both quantitative and qualitative research, and therefore both of these aspects, when evaluating trustworthiness, are needed. When assessing the method of the critical appraisal, I discovered that the tools that different sources give did not implicitly fit my desires of use. To make them more suitable for my cause, I decided to slightly mould them in order to project the aspects, which show the value of the studies the best. The key issues considered in critical appraisals are revised in Appendix 2. The guiding questions and the themes are adapted from Melnyk and Fineout-Overholt (2011, 99-103 & 494-511) and Polit and Beck (2012, 112-117).

The critical appraisal made for the articles chosen for the review is gathered in matrices to increase the value and validity of my own research. The matrix for quantitative studies is found in Appendix 3 and the matrix for qualitative studies is found in Appendix 4.

4.5 Data analysis

According to Polit and Beck (2012, 562) a data analysis is necessary in order to understand, organise and create a clear connection between the data acquired. It happens already in parallel with the data collection, when, for instance, suitability is assessed (Melnyk & Fineout-Overholt 2011, 445).

The data analysis was done in two parts; first by analysing the quantitative literature and then the qualitative literature. Finally, all the data acquired was compared and the results matrix was made (Appendix 5.).

The quantitative studies are written by Mauleon et al (2007) and Mitchell (2008). These studies were conducted using Likert-style questionnaires with open-ended questions in addition. Both have adequate sample sizes. Mauleon et al (2007) and Mitchell (2008) are both interested in anxiety experienced in the operation theatre and its frequency.

The qualitative studies chosen for the review are written by Hankela and Kiikkala (1996), Haugen et al (2008), Jönsson and Mårtensson (2011) and Karlsson et al (2012). All studies except Karlsson et al have phenomenological research designs. Karlsson et al use a reflective lifeworld research design. All the chosen research designs do justice to the evidence acquired.

The data from these studies were categorised under two topics: patient perceptions documented and nursing interventions and considerations to enhance cooperation.

When analysing the data, I first divided the evidence into two categories; firstly, what the patient experienced, and secondly, what were the nursing interventions used for enhancing and maintaining cooperation during the intraoperative phase of the surgical

care. This way I could draw conclusions on the main themes that this evidence is lining into.

5 FINDINGS

When categorising the findings, the purpose was to find answers for the initial research question. Therefore, the findings are categorised under the main themes of this thesis. These themes are the experiences found in the data and the nursing methods or ways used to enhance the cooperation.

5.1 Patient experience of the intraoperative phase during regional anaesthesia

Haugen et al (2008) and Mitchell (2008) are mainly interested in the frequency and occurrence of anxiety in the operation theatre. According to Mitchell (2008, 261), the anxiety provoking aspects in intraoperative interventions are mainly the events inside the operation theatre. Because of the lack of information, the patients tend to have unrealistic beliefs and fears of what is going to happen to them and that provokes anxiety in them (Mitchell 2008, 267).

Haugen et al (2008; 2301) also found out that the anxiety level was at its peak before the induction of the anaesthesia. It was reduced when the patients realised that the anaesthesia was taking its effect (Haugen et al 2008, 2308). Haugen et al (2008, 2308) also suggests that seeing the surgical instruments and the technical equipment provoked anxiety in some patients. This was supported also in the studies by Hankela and Kiikkala (1996, 440) and Karlsson et al (2012, 159).

Hankela and Kiikkala (1996, 438) show that the patients experienced regional anaesthesia uncomfortable in terms of positioning, skin disinfection, and manoeuvring the body to the surgical position. Rough handling and being exposed on the operation table with hands spread was felt as undignifying and inhumane (Hankela & Kiikkala 1996, 440). Furthermore, Karlsson et al (2012, 160) state that the positioning on the operation table made patients feel unprotected and unguarded.

Jönsson and Mårtensson (2011, 21) state that the regional anaesthesia itself made the experience for the patients unreal. What they could see and what they could feel was not in line with each other (Jönsson & Mårtensson 2011, 21). This was also found in the

study by Karlsson et al (2012, 159), where sensory and visual information did not comply, and in the study by Mauleon et al (2007, 896), where the situation felt unreal for the patients.

Hankela and Kiikkala (1996, 440) and Karlsson et al (2012, 158) both discuss the experience of objectivity, where patients felt more like outsiders or objects that are repaired in the operation theatre. Regional anaesthesia and losing the sense of the limb and being manoeuvred enhanced the experience of objectivity (Karlsson et al 2012, 158- 159).

In the majority of the studies chosen (Hankela & Kiikkala 1996, Mauleon et al 2007, Haugen et al 2008, Mitchell 2008, Jönsson & Mårtensson 2011), the importance of the information flow for the experience of the patient is discussed. According to Mitchell (2008, 267), more informed patients were calmer during the operation. Also Haugen et al (2008, 2307) state that a continuous information flow and the ability to freely ask questions reduced anxiety in patients. Hankela and Kiikkala (1996, 440) further argue that information supported the patients' autonomy. Correspondingly, Mauleon et al (2007, 896) argue that the patients' inability to feel trust was rooted in the lack of knowledge and understanding of the situation. Additionally, lack of knowledge would create embarrassing moments and discomfort for patients, when, for example, they could not control their bladder function due to the effect of the regional anaesthetic (Jönsson & Mårtensson 2011, 21).

Waiting to get to the operation and waiting for the surgeons or anaesthesiologists made patients experience uneasiness and anxiety (Mauleon et al 2007, 896; Haugen et al 2008, 2307). Mauleon et al (2007, 895) described how patients experienced the waiting as endless. In addition, pain was one of the phenomena patients experienced in Mauleon et al (2007) and Jönsson and Mårtensson's (2011) studies. In these studies, the patient felt that the pain was a necessary evil and the cost for recovering (Mauleon et al 2007, 896; Jönsson & Mårtensson 2011, 20).

According to the studies, patients need acknowledgement and reinforcement for their experience. The whereabouts of the caregiver, eye contact, and touch were experienced as important, and this in turn would confirm the situation for the patients. (Karlsson et al 2012, 158.) For the patients, it is important that they remain in the centre of the

operation and the personnel is in a close proximity in order to enhance the feeling of security (Jönsson & Mårtensson 2011, 21).

The feeling of being helpless and at the mercy of others was described in studies by Mauleon et al (2007) and Jönsson and Mårtensson (2011). Patients experienced that they were forced to trust the operating crew and to undergo the procedure and had no say in the matter anymore once the anaesthetic was given (Mauleon et al 2007, 896). The same aspect was discussed in Jönsson and Mårtensson's (2011, 22) study, where the patients experienced vulnerability and exposure due to the anaesthetic.

The relationship between the caregiver and the patient appeared to be an important aspect in the experience in many cases (Hankela & Kiikkala 1996, Mauleon et al 2007, Jönsson & Mårtensson 2011, Karlsson et al 2012). Humour as well as free and equal discussion of everyday matters felt important for the patients and enhanced trust and safety in addition to giving them a sense of good care (Hankela & Kiikkala 1996, 440; Jönsson & Mårtensson 2011, 21). When the atmosphere in the operation theatre was welcoming and open, the patients felt safe (Jönsson & Mårtensson 2011, 21). It also enhanced the sense of inclusion, where the patient could feel that he or she was part of the team (Karlsson et al 2012, 159). This in turn attributed to the sense of control, which was reported to be important for the patients in maintaining autonomy (Jönsson & Mårtensson 2011, 21).

5.2 Nursing ways to enhance cooperation

The information flow was mentioned in every study chosen for the review (Hankela & Kiikkala 1996, Mauleon et al 2007, Haugen et al 2008, Mitchell 2008, Jönsson & Mårtensson 2011, Karlsson et al 2012). Maintaining trust, reinforcing the patients' control and autonomy, and giving information before, during and after the operation were found to be crucial aspects (Hankela & Kiikkala 1996, 440; Mauleon et al 2007, 897-898; Haugen et al 2008, 2307; Mitchell 2008, 268; Jönsson & Mårtensson 2011, 22). A possibility to ask questions and a welcoming atmosphere to do so enhanced the cooperation between the patient and the caregiver (Karlsson et al 2012, 159; Haugen et al 2008, 2307).

A preanaesthetic assessment of the patient was found to be important before the operation. When generalised anxiety is present, the patient is more susceptible to be anxious during the operation as well. Therefore, the recognition of depression and generalised anxiety may allow nurses to be more prepared to encounter the patient if regional anaesthesia is still an option. (Mitchell 2008, 268.) Involving the patient to the decision making on the method of anaesthesia and providing them psychological support enhanced coping during the operation (Haugen et al 2008, 2308).

Patients also reported that respect shown towards them was a sign of good care (Hankela & Kiikkala 1996, 440). Unhurried and polite treatment as well as including the patient in the everyday conversations made them feel secure and calm (Hankela & Kiikkala 1996, 440; Mauleon et al 2007, 893). Allowing the patient to take an active role in the treatment and listening and seeing the operation, if possible, enhanced their feeling of control (Mauleon et al 2007, 893). Listening to the patient, maintaining eye contact, and monitoring the pulse manually, sometimes just to touch the patient, enhanced the feeling of security and safety (Karlsson et al 2012, 160). It is important to validate the experiences that the patient has and to believe what he or she is saying. For example, evaluating the effect of analgesia reinforced the trust between the patient and the caregiver. (Mauleon et al 2007, 897; Karlsson et al 2012, 163.) Remembering that patients are individuals and treating them as ones diminished the feeling of being an object on the operating table (Jönsson & Mårtensson 2011, 23; Karlsson et al 2012, 163). In addition, nurses need to maintain the patients' integrity as much as possible while disinfecting and setting them in the surgical position (Jönsson & Mårtensson 2011, 22).

Trust and a trusting relationship between the caregiver and the patient was reported to have an important effect on the patients' coping (Hankela & Kiikkala 1996, 440; Mauleon et al 2007, 897; Karlsson et al 2012, 159). Involving the patient in the discussion of the operation theatre crew, even though it was not always about the operation itself, gave the patient a sense of belonging (Hankela & Kiikkala 1996, 440). Patients appreciated when the caregivers treated them as equals and gave an impression that they understood the patients' situation (Karlsson et al 2012, 162). Patients also found it comforting when the caregivers asked how they were, even though everything seemed to be in order (Jönsson & Mårtensson 2011, 22). A trusting relationship

between the caregiver and the patient made the patient feel more confident (Mauleon et al 2007, 897).

6 DISCUSSION

According to the findings, a few distinctive themes were prominent in answering the original research questions. The answers for the first question, “How do the patients perceive the experience of being awake during an intraoperative procedure performed under regional anaesthesia?”, could be categorised under three themes: the cost of recovering, the effects of the operation and anaesthesia, and the lack of knowledge. With the second question, “How can the nurses enhance the cooperation with and feeling of security of a patient? The nursing ways to provide the best possible intraoperative experience.“, three themes arose; the importance of information, the nurse-patient relationship, and aiding with coping through the operation.

Patient experience: The cost of recovering

Mauleon et al (2007, 896) showed in their study that patients are afraid to sense pain. Pain is seen as a necessary evil that the patients need to experience to be healthy again (Mauleon et al 2007, 866). Additionally, Karlsson et al (2012, 158) point out that even though patients had a desire to be acknowledged, they still tended to ignore unpleasant experiences so that the staff could have peace to work for their benefit. Later on during the interviews, the patients felt freer to feel disappointment and dissatisfaction. Sometimes the patients felt that the highly evolved technology came in between of the relationship between their carer and themselves, but they chose to let it go so that the crew could concentrate on what they are trained to do. (Karlsson et al 2012, 158.) According to Jönsson and Mårtensson (2011, 21), the patients felt forced to go through the experience and leave themselves at the mercy of others. These made them feel powerless and dependent, losing the control over the situation to the operation theatre staff (Jönsson & Mårtensson 2011, 21).

Patient experience: The effect of the operation and the chosen anaesthesia method

Patients felt anxious at the sight of surgical instruments and equipment (Haugen et al 2008, 2308). In addition, the narrow table, sounds of drilling, and the technology in the operation theatre made some patients choose to listen to music instead of hearing the sounds around them (Hankela & Kiikkala 1996, 440; Karlsson et al 2012, 156).

According to Hankela and Kiikkala (1996, 438), patients suffered from a fear of failed anaesthesia, and death resulting from failed anaesthesia or operation. They also say the patients may have felt insecure over a changed body image due to the operation (Hankela & Kiikkala 1996, 438). Mauleon et al (2007, 895) also discovered that the mere fact that the patients have to undergo an operation while being awake induced fear. According to the Finnish Health Care Act (2010/1326), patients have the right for autonomy over their bodies, and this right seems to be blurred in the operation theatre in some cases (Hankela & Kiikkala 1996, 440; Jönsson & Mårtensson 2011, 21; Karlsson et al 2012, 158).

Patient experiences: Lack of knowledge

According to Mitchell (2008, 267), patients tend to have false beliefs and facts about the anaesthesia and the surgery that guides their reality, such as seeing a cut open. In addition, the patient cannot trust the caregiver's judgement if he or she has no knowledge on the matter and therefore trust is more difficult to establish (Mauleon et al 2007, 896). As mentioned earlier, a continuous information flow supports the sense of autonomy (Hankela & Kiikkala 1996, 440) and gives the patient a chance to be more involved in the decision making and care (Mauleon et al 2007, 897-898). According to Current Care Guidelines in Finland, a preanaesthetic visit is a part of the surgical treatment and should be scheduled when the preoperative visit to the surgeon is planned. In this meeting, not only the eligibility to the regional anaesthesia is assessed, but also the patients should have time to ask questions from the anaesthesiologist and the nurse. (Käypä Hoito 2008.) Anyhow, these requirements that the guidelines set are not always met in Finland, even though the research shows the benefit of patient education preoperatively both for the patient and the surgical team (Lukkari et al 2013, 129).

Nursing ways: Information

As mentioned earlier, the importance of continuous information access is crucial for the patient (Hankela & Kiikkala 1996, 440; Mauleon et al 2007, 897-898; Haugen et al 2008, 2307; Mitchell 2008, 268; Jönsson & Mårtensson 2011, 22). A patient who is better informed and who is not afraid to ask questions is more confident and calm and trusts the judgement of the professionals (Mauleon et al 2007, 897-898; Haugen et al 2008, 2307). In turn, the patients who did not know what was happening felt discomfort (Jönsson & Mårtensson 2011, 21). Therefore, according to the findings and as reflected

in the theoretical background of this thesis, information, in the sense of receiving it and giving it, is beneficial to the patient and to the operation team and enhances the cooperation between them.

Nursing ways: The nurse-patient relationship

The foundation of nursing practice in a nurse-patient relationship is mutual respect and trust (Griffith 2013, 1087). In the operation theatre and in the perioperative nursing care, this tends to be forgotten and nurses' concentration is mainly directed to completing tasks (Kolvered et al 2011, 449). According to the studies in the review, the patients appreciated a trusting and open relationship with their caregivers (Mauleon et al 2007, 893). They also thought that including them in the everyday discussions and using humour inside the theatre made them feel more included (Hankela & Kiikkala 1996, 440; Jönsson & Mårtensson 2011, 21). The patients also appreciated touch, eye contact and every now and then, inquiries of coping (Karlsson 2012, 158). Visiting the operation theatre is an everyday task for perioperative nurses, but they should remember that it is often, in fact, once in a lifetime experience for a patient and that every patient is unique (Jönsson & Mårtensson 2011, 23; Karlsson et al 2012, 162). This, in turn, could reverse the nurses' view of a patient from an object to a subject (Kolvered et al 2011, 455).

Nursing ways: Helping patient with coping

Keeping close to the patients, acknowledging their experience, and maintaining a positive and warm atmosphere helped the patient to cope (Jönsson & Mårtensson 2011, 22; Karlsson et al 2012, 158). Hankela and Kiikkala (1996, 438) stated that the patients' own motivation to recover helped them cope. Hankela and Kiikkala (1996, 440) and Mauleon et al (2007, 896) also described pain as an experience. Therefore, believing in the patients' sensation of pain, good analgesia cannot be refused from them. Controlling pain is an essential part of perioperative care. (Lukkari et al 2013, 329.)

6.1 Applicability to practice and nursing education

According to the findings, the patients should be seen as individuals experiencing once in a lifetime experience. This is a fact that nurses need to understand and appreciate in order to treat the patients with respect. To a patient, an honest, trustworthy and polite nurse is reassuring and helps them cope. The common respect that a person should have towards another in any case should continue in nursing care. Additionally, equality should be considered, meaning that a patient should be seen as an equal person to the nurse and there should be no gaps between them.

The patients wish to have help in coping. As professionals, we have an exclusive insight on what happens in the operation theatre, and yet this does not make us afraid. Perhaps nurses should let the patient into this insight by answering all the questions they have, and continuously give them information about what is happening next and why. A more informed patient is a more confident one, as seen in the results of this thesis.

In conclusion, the answer to the question initially asked, in the light of the evidence shown, is simple; respect the patient, listen to him or her and give information, and help the patient cope by being there for him or her.

6.2 Trustworthiness

Trustworthiness, as discussed in the methodology section, is describing whether the study can be trusted. It can be evaluated by consistency, transferability, dependability, and credibility. (Melnik & Fineout-Overholt, 2011, 154-155, Polit & Beck 2012, 175.)

When evaluating this study, choosing the articles for the review only from reliable sources, mainly recognised nursing journals that use double-blinded peer-review to review the articles published, enhances credibility. The study is written in a transparent manner, where the steps taken to achieve the results and the conclusion can be seen clearly. Therefore, the study would be possible to replicate reaching the same findings. This also enhances credibility (Polit & Beck 2012, 268).

The consistency of the findings can be evaluated with the help of the results matrix in Appendix 5. The findings in the chosen articles are consistent with each other and

reinforce each other, hence increasing the credibility. This enhances dependability and consistency (Polit & Beck 2012, 175).

In addition to continuous self-reflection, the Bachelor's thesis process in TAMK also enhances trustworthiness by providing continuous reflection and evaluation of the written product by appointed opponents and a mentor teacher. The aspects of this study and any problems encountered during the process were openly discussed in seminars with other students conducting their research.

When conducting the thesis process alone, there is always a risk for research subjectivity, where the author's own perceptions and expectations of the findings create bias (Polit & Beck 2012, 176). The process of writing a Bachelor's thesis and the group and opponent reflection, however, diminishes bias.

6.3 Limitations

The Bachelor's thesis process is done simultaneously with other studies in the universities of applied sciences, and the time given to accomplish the thesis is approximately a year. This may be seen as a limitation for the study, when considering the resources and the time acquired for the process.

Culture affects the perception of the world around us, and therefore experience can be seen as a culture related matter (Leininger 2006, 15). The studies chosen for the review are written in the Nordic countries, except for Mitchell (2008, United Kingdom). Therefore, the experiences studied are experiences of western patients. Hence, the transferability and generalisation of the findings may not be accurate outside of western countries. Currently, studies conducted outside western countries that would meet the selection criteria could not be found.

Furthermore, the fact that this is not a systematic review, even though the purpose of the literature retrieval was to conduct it as systematically as possible, can also be seen as a limitation. Therefore, the results this study provides can only be seen to constitute a small portion of all possible information acquired in the nursing field.

6.4 Ethical considerations

Ethical considerations are crucial in nursing research (Polit & Beck 2012, 150). When studies involve participants, whether they are animals or humans, ethics needs to be addressed to ensure the credibility of the study (Melnik & Fineout-Overholt 2006, 444). According to Polit and Beck (2012, 152), we need to ensure that the studies are beneficial, respect human dignity, and are just.

The main ethical consideration for my thesis is to evaluate the ethicality of the studies chosen for the review. Local ethical committees evaluated all the studies chosen for the review and all of them state the respect towards the subjects they studied. In the reviewed studies, the patients gave signed consent to the use of information acquired from them, they were informed that they could stop participating at any point of the study without a stated reason, they were informed about the purpose of the interviews and questionnaires, they were allowed to ask questions of their participation, and they were assured of their anonymity and confidentiality, and that participation or declining to participate would not affect the treatment they were receiving in any way (Hankela & Kiikkala 1996, 436; Mauleon et al 2007, 894; Haugen et al 2008 2303; Mitchell 2008, 265; Jönsson & Mårtensson 2011, 20; Karlsson et al 156). According to Polit and Beck (2012, 152-158), these are the key issues when protecting the participants. Therefore, the respect towards human rights can be accomplished through the considerations the authors of the studies chosen have made while conducting their studies (Polit & Beck 2012, 172).

This review itself seeks out to benefit the patient and the provider to ensure a safer and more pleasant experience in the operation theatre and to enhance cooperation. Yet, there was no need to seek approval from an ethical committee, since the review does not involve participants studied directly (Polit & Beck 2012, 165-166).

6.5 Recommendations for further studies

Further information is needed from the nurses' point of view. Kelvered et al (2012) have studied the nurses' ways to encounter and help a patient go through a surgery, but

more information could be acquired on how equipped and ready nurses feel to encounter and care for patients that are anxious and in need of psychological support. According to Mitchell (2008, 268), when patients are increasingly having intraoperative experiences due to regional anaesthesia, they are also in need of more support. Yet, at least in TAMK, nursing students acquire only a small portion of education about supporting the patients' coping. Therefore, it might be good to have more knowledge on the relevance of this kind of situation for nurses.

The studies did not distinguish who was the person in charge of taking care of the patient's psychological wellbeing in the operation theatre, except for Karlsson et al (2012), who stated it to be the anaesthetic nurse. One of the reasons for the lack of this distinction probably was that it is every professional's responsibility to work towards the common goal, the patient. It could be an interesting subject to study how the members of operating staff regard their position in patient reassurance when the patient is awake during a surgery.

7 CONCLUSION

This thesis set out to discover how the patients experience the intraoperative phase of surgical treatment while they are awake due to the regional anaesthesia. The objective of this thesis was to enhance the cooperation between the surgical staff and the patient and further to help in promoting as safe and pleasant experience to the patients as possible.

The findings showed that the patients' lack of information induced anxiety and that giving information prior and during the operation was crucial in ensuring a safe and pleasant experience for the patients. Informing the patient was also important in maintaining a cooperative relationship between the caregivers and the patient. Respect towards the patient can be seen as self-evident, but sometimes it was lacking in this relationship.

Patient experience was affected by the relationship the patient had with the operating team. With politeness, respect and equal treatment, patients felt that they were in a better control of the situation and experienced inclusion in the operating team. It was found out that the nursing ways to enhance cooperation were not complicated nursing methods. Rather, they were respect towards one another and being there for a person that is about to experience something that usually is once in a lifetime experience.

The Bachelors' thesis process was an educating and enlightening experience for me, where I grew not only as a researcher but also as a nurse. Initially, I sought out to find out how professional perioperative nurses help the patient to cope in a situation that must feel very intimidating, and how the nurses reassured patients to relax and cooperate. I expected to find various, complicated nursing methods, but to my surprise the answer was quite simple: meet the patient as a peer and help him or her cope through the experience.

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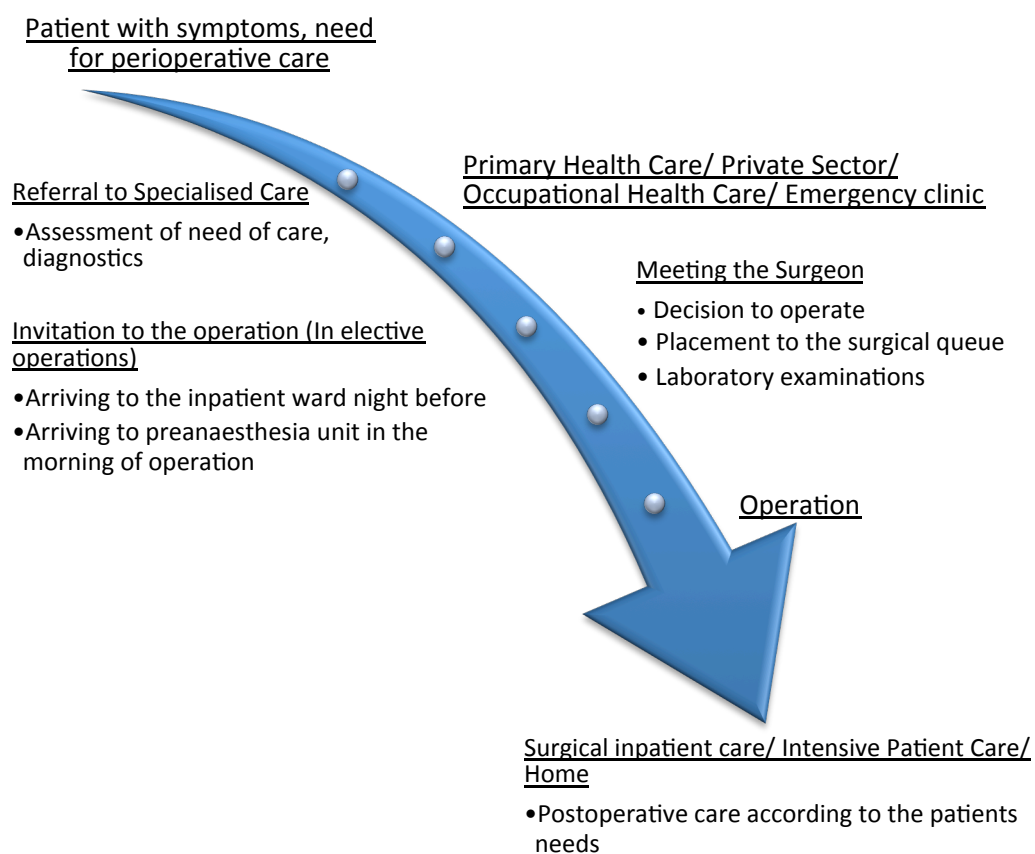
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APPENDICES

Appendix 1. The care pathway of a perioperative patient in Finland adapted from the Current Care Guidelines 2008, Hammar 2011 (11-18) and Lukkari et al 2013 (24).



Appendix 2. Issues to evaluate in quantitative and qualitative research evidence. Adapted from Melnyk and Fineout-Overholt (2011, 99-103 & 494-511) and Polit and Beck (2012, 112-117).

Quantitative critical appraisal	Qualitative critical appraisal
<p><u>Aim, research question</u></p> <ul style="list-style-type: none"> • Why was the study conducted? • Are the research questions clear and understandable? • Do the aim and research questions justify the need for the research? <p><u>Sample</u></p> <ul style="list-style-type: none"> • Is the sample size sufficient? • Is the conclusion of how the sample was selected transparent? • Sampling bias presented? <p><u>Validity and reliability</u></p> <ul style="list-style-type: none"> • How well does the instrument of measurement assess what it is supposed to assess? • Are the numbers of participants consistent throughout the study? • Actions taken to ensure validity and reliability? <p><u>Data collection and measurement</u></p> <ul style="list-style-type: none"> • How is the instrument of measurement described? Is the use of it justified? • Is the data collection transparent? <p><u>Procedures</u></p> <ul style="list-style-type: none"> • Was there intervention that was studied? • How was the data collected, by whom → possibility of bias, error in reliability? <p><u>Results</u></p> <ul style="list-style-type: none"> • Is the previous state of knowledge in line with the information that the study displays? • Is the data projected in an appropriate manner? Is there data missing? • How do the results correspond with previous knowledge? <p><u>Significance to general practice</u></p> <ul style="list-style-type: none"> • Is the clinical relevance for practice mentioned in the article? Is it reasonable? 	<p><u>Aim / purpose / objective</u></p> <ul style="list-style-type: none"> • Are the aim / objective / purpose of the research clearly stated and reasonable? • Is the need for more knowledge justified? <p><u>Sample</u></p> <ul style="list-style-type: none"> • Is the sample selection described adequately? Acquiring the sample appropriately? • Are ethical considerations adequate? Protection of the participants? <p><u>Method / Research design</u></p> <ul style="list-style-type: none"> • Is the design proper to the desired goal of the study? • Is the data collected in a proper way to exclude the possibility of bias? <p><u>Reported results</u></p> <ul style="list-style-type: none"> • Are the results of data acquired reported in a proper manner? • Are the themes arisen in line with the theory / literature review (results without interpretations of the authors)? • Are the results valid / trustworthy and credible? <p><u>Discussion</u></p> <ul style="list-style-type: none"> • Are the results discussed in comparison to previous studies? • Is the study giving additional knowledge on top of the already known? • Are there recommendations for further studies? <p><u>Implications / Recommendations</u></p> <ul style="list-style-type: none"> • Is there clinical relevance for the practical nursing work? • Is the evidence usable in practice?

Appendix 3. Critical appraisal of quantitative studies.

Authors	Haugen et al 2007	Mitchell 2008
Aim, research questions	The aim has significance and need for the study is presented. Research questions are clear and understandable.	The aim and research questions clearly presented. The significance understandable.
Sample	Sample size small for questionnaire, but sufficient in forming conclusion (N = 119). Inclusion and exclusion criteria are clearly stated.	Size sample large (N = 214). Criteria for sample selection clear and no seen bias in choosing.
Validity, reliability	The set measurement tool adequately measures the study's research questions. All participants considered throughout the study.	Section assessing own reliability and validity. Clear-face validity mentioned. Pilot study performed to validate reliability.
Data collection and measurement	Instruments of measurements were introduced well, and their use justified. Data collection method explained	Data collection method transparently explained. The instrument of measurement explained.
Procedures	No intervention. A nurse discharging the patient collected the questionnaires. No evident bias.	No interventions. The questionnaires and information leaflets distributed to patients by PACU personnel.
Results	The results are in line with previously presented theory and research. Statistical significance considered with findings.	The results are in line with previous information. Statistical significance considered with findings.
Significance for general practice	The significance and relevance for clinical practice is mentioned and they are reasonable.	Table of significance to clinical practice is presented in the article. The suggestions are reasonable.

Appendix 4. Critical appraisal of qualitative studies

Authors	Hankela & Kiikkala 1996	Jönsson & Mårtenson 2011	Karlsson et al 2012	Mauleon et al 2007
Aim/purpose /objective	The purpose of the study is clearly stated, understandable and with the provided previous knowledge given, needed. Ultimate goal stated.	The purpose is clearly stated. Need to further knowledge retrieval justified.	The aim of the study is justified and clearly stated.	The aim of the study is justified and clearly stated.
Sample	The sample selection method stated clearly. Sample size large (N = 20). Ethical considerations mentioned superficially. No indication of jeopardising participants' rights.	The sample selection described clearly. Inclusion and exclusion criteria clear. Interviewers' professionalism discussed. Sample size moderate (N = 14). Ethical considerations rigorous. The study accepted by head of anaesthesia department because of lack of ethical committee.	The method of acquiring the sample written transparently. Selection criteria clear. Sample small (N = 7). Ethical considerations as own section and thoroughly discussed.	The selection criteria are explained very rigorously. Sample size is moderate (N=14). The information given to participants and their informers' professions are described. Ethical considerations are thorough.
Method /research design	Phenomenological research design suits with the phenomenon in review. Method explained well related to the study at hand.	Phenomenological research design suits with the phenomenon in review.	Reflective lifeworld research design used and appropriate. The researchers collected data. Data analysing process transparently described.	Interpretative phenomenological approach is appropriate and justified choice for the study. Interviewers are the authors. The setting of the study is described.
Reported results	Results are projected in themes and appropriately. Themes in line with previous but scarce theory.	The results divided in themes and are appropriate. The themes described very thoroughly. Literature review part of introduction, but in line with results.	The results acquired appropriately and no evident bias seen. The results gathered in themes that are in line with previous knowledge.	The data collection and its analysis is described very rigorously. The results are divided to appropriate themes based on the evidence. The information is in line with the previous knowledge.
Discussion	Discussion after conclusion. Very superficially discussed. No recommendations for further studies.	Results are discussed in light of previous information. Study provides additional knowledge. Recommendations for further studies are mentioned.	Discussion thorough and divided into method and findings. This section reflects well on the process and the findings. Validity and credibility in addition to bias are discussed. Recommendations for further studies are not seen.	Discussion reflecting finding to previous knowledge appropriately. Study provides additional knowledge. Recommendations for further studies are not mentioned.
Implications / Recommendations	The relevance to practice cannot be questioned, but it is not specifically mentioned, rather taken for granted.	Own section. Reflects well to the study in light of how we could use the information.	Clinical implications are written well in reflective method. The evidence is very usable in practice.	Implications for general practice are discussed in own section briefly.

Appendix 5. Results matrix. Adapted from Polit & Beck (2013, 108-110).

Authros, year	Country	Article title	Study design and sample size	Patient experiences	Nursing ways to enhance or maintain cooperation
Hankela & Kiikkala, 1996	Finland	Intraoperative Nursing Care as Experienced by Surgical Patients	Phenomenological research design, N = 20	The procedure seen as risk to integrity, which in turn enhances the feeling of insecurity. Awkward positioning experienced difficult. Environment and equipment creating fear and uneasiness. Humour and informal communication seen to reinforce coping.	Gentle, polite, unhurried way to manoeuvre and care the patients. Proper analgesia considered. Continuous information flow of the procedures taking place. Reinforcing coping. Humour, informal way of communication, sense of the situation. Allowing the patients to take part in care.
Mauleon, A., Palo-Bengtsson, L. & Ekman S-L., 2007	Sweden	Patients experiencing local anaesthesia and hip surgery	Phenomenological research design, N = 14	Well-being comfort being compromised. Sensing pain, endless waiting, alienation, unreal surroundings, sensing trust and mistrust.	Understanding the patients' situation and understand the difference of lived experience between staff and patient. Creating trusting relationship with patient, avoiding interventions that create mistrust. Taking care of the proper analgesia.
Mitchell, M, 2008	UK	Conscious surgery: influence of the environment on patient anxiety	Likert-like questionnaire, N = 214	Intraoperative events creating anxiety. Lack of knowledge created unrealistic fears. Correlation between information received and calmness in operation theatre.	Continuous information flow of the procedures taking place. Preoperative communication where wrong knowledge of regional anaesthesia can be corrected.

Haugen, A., Eide, E., Olsen, M., Haukeland, B., Remme, Å. & Wahl, A. 2009	Norway	Anxiety in operating theatre: a study of frequency and environmental impact in patients having local, plexus or regional anaesthesia	Retrospective quantitative study, N = 119 (Likert)	Tendency of anxiety is generally increasing towards induction of anesthesia and then descending.	Continuous information flow of the procedures taking place. Possibility to ask questions. No unnecessary waiting. Generalised anxiety recognition preoperatively and nursing readiness to expect anxiety in operation theatre.
Jönsson, S. & Mårtensson, J. 2011	Sweden	Uppfattningar om ryggbedövning hos dagkirurgiska patienter som genomgår knäartroskopi (Views of regional anaesthesia of day surgery patients undergoing knee arthroscopy)	Phenomenological research design, N = 14	Forced to undergo painful procedure. To be exposed and at the mercy of others. Feeling embarrassment, when unknown effects of regional anaesthesia take place. Being looked after gave feeling of safety. Fun atmosphere in operation theatre created by the staff enforced the feeling of belonging and safety.	Maintaining patient integrity, subjectivity important to patients. Continuous information flow essential, especially preoperatively. Patients felt need to be seen and heard. Staff creating nice and fun atmosphere in operation theatre was considered way of relieving anxiety.
Karlsson, A-C., Ekeberg, M., Mauléon, A. & Österberg, S. 2012.	Sweden	“Is that My Leg?” Patient’s experiences of being awake during Regional Anaesthesia and Surgery	Reflective lifeworld research design, N = 7	At the same time, feeling of participation and being left out. Balancing between being object or subject, having control and giving the control up for the caregivers.	Carrying on conversation, listening to patient. Allow patient to take part in conversations, not to exclude by talking about matters the patient cannot relate to. Anaesthetic nurse to stay close, not physically leaving patient alone. Maintaining possibility to eye contact, does not let technology to intervene. Never objectify the patient.